he concludes that transitory albumiuuria is to be considered one of the symptoms of the epileptic attack. Still, the frequent absence of this symptom and its short duration deprive it of any special practical importance.

The following are among the articles receutly published on the Pathology of the Nervous System and Mind and Pathological Anatomy.

Witkowski, On the Melancholic Initial Stage of Insanity, *Berl. klin. Wochenschr*, Dec. 11; Bernhardt, Communication on Athetosis, *Deutsch. med. Wochenschr.*, Dec. 2; Sartisson, Color Blindness and Railwny Service, *St Petersburger med. Wochensch.* Nov. 20—Dec. 2, 1876; Moos, On the Connection between Diseases of the Auditory organs and those of the Fifth Nerve, *Virchow's Archiv.*, LXVIII, III, Nov. 13; A. Mitchell, Contribution to the Statistics of Insanity, *Jour. of Mental Sci.*, Jan. 1877; D. Huck Tuke, On the Prevalence of the causes of Insanity among the Ancients *Jour. of Ment. Sci.*, Oct. 1875; Peddie and Bucknill, Letters on the Relation of Drink and Insanity, *Ibid*; Carre, Nervous Hemoptysis, *Arch. Gen. de Med.*, Jan. 1877; Albertoni, The Influence of the Brain on the Production of Epilepsy, *Archivio Italieno*, Nov. 1876; Bouchut, The Nature and Treatment of Tetany or Contracture of the Extremities in Infants, *Gaz. des Hopitaux*, Dec. 12; Du Saulle, The Epileptics, *Ibid* (cont. art); Hughlings Jackson, On the Embolic Theory of Chorea *Brit. Med. Jour.* Dec. 23; Mackenzie, Coincidence or Correlation? A Note on the Embolic Theory of Chorea, *Ibid.*; Berger, On the Pathology of Rheumatic Facial Paralysis *Deutsche med. Wochenschr.* Dec. 9; Biante, General Paralysis as a predisposing cause of Fractures, *Ann. Med. Psych* Nov. 1876; Simon, The Imagination in Insanity, *Ibid.*

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c.—THERAPEUTICS OF THE NERVOUS SYSTEM AND MIND.

Hydrobromic Acid.—Dr. A. McLane Hamilton, *Phil. Med. Times*, Oct. 28, gives the following testimony on this agent.

"In appearance it is a straw-colored liquid, with an agreeable acid taste, and a slight odor of bromine. It combines very readily with many substances, and may be given with tinct. ferri. chlor., strychnine, etc. It preveuts the headache caused by the iron, when given to persons who are anæmic (Fothergill). It dissolves a large amount of quinine; and Gubler found that the head-effects of that drug were not produced wheu this combination was employed.

"In small doses it acts very much as the bromides do, but with much more intensity. Half a drachm is fully equal to one drachm of the bromide of potassium. It differs, however, in the want of permanence of its effects, the base of the bromic salts seeming to favor retention. In epilepsy it is not serviceable. I have used it in three cases. One case in which the attacks were monthly, and bromide was administered, was aggravated by H. Br. The attacks increased in violence and frequency. Large doses did no good; and it was only in one case that it accomplished anything.

"In hysteria, Fothergill found it to be a valuable remedy.

"Its indication, I think, is in that form of cerebral hyperæmia which is of sudden origin and dependent upon a disturbed heart action and general debility. In the nervous condition following the abuse of tea, coffee, or tobacco, alcoholism, insomnia due to congestion, and a number of varieties of disturbed cranial circulation it is the best remedy I know of."

After giving accounts of four illustrative cases of insomnia, cerebral disturbance, etc., Dr. Hamilton concludes with the following paragraphs:

"It may be given just as the bromides are and the observers I have mentioned, (Wade and Fothergill) have used it to allay bronchial irritation, to stop the vomiting of pregnancy and for other morbid states accompanied by reflex excitement.

"Its advantages are its reliabiliiy, its ready decomposition in the stomach, and its agreeable form.

"I have prescribed it with essence of lemon and sugar, in which form it makes a pleasant drink. It should always be well diluted with water."

In regard to the above statements of Dr. Hamilton, Dr. J. Milner Fothergill, *Phil. Med. Times*, Dec. 9, says as follows:

"I have just perused with satisfaction the remarks of Dr. McLane Hamilton on this useful therapeutic agent. His cases are very illustrative of its action. A friend told me the other day that he had prescribed it for the nervousness and flushings of the change of life with excellent effect.

"I may add that it is most useful in that form of excito-neurosal palpitation found in women along with general nervousness. In such cases, given with quinine, and in some cases, a small dose of digitalis where the heart is weak, it produces the most satisfactory results.

"It also forms part of a really charming cough-mixture, efficient as well as palatable. The form is as follows:

R.	Sp. Chloroform, - -	M. XX.
	Hydrobromic acid, - -	℥ss.
	Syr. Scillæ, - - -	℥i.
	Aq. ad ℥i, ter in die.	

"The dose, of course is reduced for children. Any other acid in this mixture is very agreeable, that the hydrobromic acid, from the effect of bromine upon reflex mechanism, allays the cough often so troublesome. It possesses much the same action as opium, without the ill effects upon the digestive organs or on the bronchial secretion."

GALVANIZATION OF THE SYMPATHETIC.—O. Tschetschott, *Diss. Russ.* St. Petersburg, 1876, (Abstr. in *St. Petersb. med. Wochenschr.* No. 32. Oct. 9-21, 1876.

Since attention was called by Remak to the therapeutic uses of galvanization of the sympathetic, this method has come more and more in repute, during the past ten years, and has been employed in the most various disorders, both with and without effect. Its literature has become very extensive; the quantity, however, is more noticeable than the quality. In his introduction, the author has undertaken the difficult task of collecting together and classifying this literature as far as is possible. The diseases in which this method has been employed he divides into three groups: 1. Diseases or symptoms that depend exclusively upon pathological alterations of the fibres or ganglia of the cervical sympathetic, such as hyperidrosis unilateralis, hemicrania, hemiatrophy, etc. In most of these cases some results were obtained. 2. Diseases dependent, either directly or indirectly upon some alterations in the brain, such are vertigo, hypochondria, insanity, hemiplegia, etc. 3. Various disorders for which one can state no well defined reason why galvanization of the sympathetic should be of any value. Here belong sciatica, anæsthesia, ataxia, arthritis nodosa, chronic eruptions such as eczema in spinal affections, etc. Since the literature shows that there are so many different views as to the employment of this method, the necessity is evident that their scientific basis should be laid down with greater precision and with the aid afforded by physiology. The author applies the experimentally determined facts to man, which show that the function of the sympathetic is the same in man and the lower animals, and that the galvanic current affects the cervical sympathetic directly when applied to the living subject. He gave himself to the task of confirming by experiment the fact that in man also, alterations of temperature in the region of its distribution followed from the direct action of the galvanic current on the cervical sympathetic. For this purpose he constructed a special form of thermometer bent at a right angle, so that, when its bulb was inserted in the external meatus, it could be fastened to the head by a band. With this he was able to obtain accurate measurement of the variations of the temperature. He made four series of experiments to ascertain (1) what alterations of temperature were produced in healthy persons by the irritation by the cathode of the upper cervical sympathetic; (2) what changes resulted in sound persons from various applications of the current; (3) the same in invalids; (4) the action of the induction stream. The experiments were so performed that after the thermometer was inserted in the meatus, one electrode was placed in the temporo-auricular-fossa just under the ear, and the other over the sternum.

1. Placing the cathode on the cervical sympathetic (12 experiments) produced each time a slight decrease of heat, (0.2° to 0.5° Cent.) and pallor of the skin of the corresponding portion of the head. With the use of stronger currents a dilatation of the pupil frequently ensued.

2. Placing the anode on the cervical sympathetic produced similar effects, but in a lesser degree. If the current was turned on gradually by

means of the rheostat, no effect followed the use of the cathode; the anode caused an increase of temperature in the region supplied. (6 experiments.)

3. The nine experiments on insane patients, melancholics, etc., produced no result, which was likewise the case with

4. Those undertaken with the induction current.

As regards the various methods of application of the electrodes, the author has instituted some collateral experiments and found that if he placed them in the region of the cervical or dorsal vertebræ, the temperature phenomena were less constant and apparent. As to the alteration of the pulse during the galvanization, he states that in a number of experiments no influence was noticed, but in some there followed a retardation and alteration of the sphygmographic trace; either the curve was shorter and steeper or the dicrotism disappeared and the ascending line increased and the descent followed more gradually.

His conclusions as to the therapy are summed up as follows: galvanization of the sympathetic is to be employed in direct affections of the nerve, or where disease is due to alterations of the organs that stand in direct connection with the functions of the sympathetic; in all other cases it has no scientific basis and is useless.

The Action of Alcohol on the Brain.—At the meeting of the British Association for the advancement of science last year, (rep. in *Nature*, Sept. 28) Mr. C. T. Kingzett read a paper on the action of alcohol on the brain. He said the question of what became of alcohol taken into the system had been extensively studied. Thudichum was the first to determine quantitatively the amount of alcohol eliminated by the kidneys from a given quantity administered, and the result he obtained was sufficient to disprove the elimination theory then widely prevailing. Dupre and many others continued these researches from which,—according to Dupre, they might fairly draw three conclusions: (1) that the amount eliminated per day did not increase with the continuance of the alcoholic diet, therefore all the alcohol consumed daily must, of necessity, be disposed of daily, and as it was certainly not eliminated within that time, it must be destroyed in the system; (2.) that the elimination of alcohol following the taking of a dose was completed twenty-four hours after the dose was taken; and (3), that the amount eliminated in both breath and urine was a minute fraction only of the amount of alcohol taken. In 1839, Dr. Percy published a research on the presence of alcohol in the ventricles of the brain, and indeed, he concluded "that a kind of affinity existed between the alcohol and the cerebral matter." He further stated that he was able to procure a much larger proportion of alcohol from the brain, than from a greater quantity of blood than could possibly be present within the cranium of the animal upon which he operated. Dr. Marcet, in a paper read before the British Association in 1859, detailed physiological experiments which he considered to substantiate the conclusions of Dr. Percy, inasmuch as they demonstrated that the alcohol acted by means of absorption on the nervous centres. Lallemand, Perrin, and Duroy had, moreover, succeeded previously in extracting alcohol from

brain matter in cases of alcoholic poisoning. But all these researches left them entirely in the dark as regarded the true action, if any, of alcohol on cerebral matter, and no method of investigation was possible until the constitution of the brain was known. Thudichum's researches in this direction, together with some more recent and published investigations by Thudichum and the author, had placed within reach new methods of inquiry regarding the action of alcohol on the brain. In his research he (Mr. Kingzett) had attempted this inquiry by maintaining the brains of oxen at the temperature of the blood in water, or in water containing known amounts of alcohol. The extracts thus obtained had been studied in various ways, and submitted to quantitative analysis, while the influences exerted by the various fluids on the brain had been also studied. These influences extended in certain cases to hardening and to an alteration in the specific gravity of the brain matter. Water itself had a strong action on brain matter (after death) for it was capable of dissolving certain principles from the brain. It was notable that water, however, dissolved no cephaline from the brain. Alcohol seemed to have no more chemical effect on the brain than water itself, so long as its proportions to the total volume of fluid did not exceed a given extent. The limit would appear to exist somewhere near a fluid containing 35 per cent. of alcohol. But if the percentage of alcohol exceeded this amount, then, not only a larger quantity of matter was dissolved from the brain, but that matter included cephaline. Such alcoholic solutions also decreased to about the same extent as water, the specific gravity of brain substance, but not from the same cause; that was to say, not merely by the loss of substance and swelling, but by the fixation of water. Many difficulties surrounded the attempt to follow these ideas into life, and to comprehend in what way these modes of action of water and alcohol on the brain might be influenced by the other matters present in blood. On the other hand, it was difficult to see how any of the matters known to exist in the blood could prevent alcohol, if present in sufficient amount, from either hardening the brain (as it did after death) or dissolving traces of its peculiar principles to be carried away in the circulation; that was to say, should physiological research confirm the stated fact that the brain in life absorbed alcohol and retained it, it would almost follow of necessity that the alcohol would act, as he had indicated, and produce disease, perhaps *delirium tremens*. Dr. McKendrick said Mr. Kingzett's researches into the chemistry of the brain and the action of various agents upon it were a valuable step in the right direction. This was essential if the mode of working of the brain were ever to be understood; but it would be a long way from the knowledge of the dead tissue to the comprehension of its vital action. No doubt alcohol had a marked effect upon the connective tissue elements in the brain. He suggested as a useful method of research the submitting of a certain class of animals for a length of time to the action of a definite amount of alcohol, and then examining their brains to discover what effect was produced. The investigation was of very great importance as regarded the treatment of drunkards; no doubt in many cases where it was thought that they had to do with merely moral evil, there was a fundamental change in physical organization. Prof. Burdon-San-

derson said the question was one that ought certainly to be taken up by government, and the best man in the country should be engaged upon the inquiry. It had a most important bearing upon the welfare of the community and the diminution of human suffering.

NITRITE OF AMYL.—Sigmund Mayer and J. J. Freidrich, *Arch. f. exp. Path.* V. p. 55. (Abstr. in *Revue des Sci. Méd.*)

Apparently the most rational procedure in experimenting on the effects of nitrite of amyl is to cause it to be inhaled through a tracheal fistula, or or to there insufflate it in curarized animals. This was the method likewise employed by Filehne.

The authors have investigated the effects of this drug.

1. On the circulatory apparatus.
2. On the respiratory apparatus.
3. On the motor apparatus, represented by the striated muscles.
4. On the economy in general.

1. Small or moderate doses, *i. e.*, the continued inhalation from 4 to 60 seconds, produced the same effect in the rabbit and the dog,—accelerations of the heart beats. This acceleration, as numerous experiments have demonstrated, is solely due to weakness and excitability of the moderator centres. When the inhalation is prolonged over a minute, ordinary excitants become almost inactive as regards that part of the brain corresponding to the nerves of arrest.

Intra-vascular pressure is considerably diminished; moreover, nitrite of amyl also paralyzes the muscular fibres of the heart and induces the arrest of its pulsations when introduced directly into its substance by injection. It appears certain that this diminution of pressure is attributable to the loss of muscular tonicity and not to the influence of the vaso-motor system.

2. The respiratory movements are directly influenced by nitrite of amyl, and present a considerable acceleration and increase of depth. Nevertheless, when the dose is large, the respiration becomes slower and more superficial than before. We have then, not a reflex action but a direct action on the respiratory centres.

3. The motor apparatus is quickly super-excited by nitrite of amyl; small doses produce cramps, larger ones induce tetanic contractures. These effects have for their direct cause the excitation of certain portions of the brain, and not modifications of the circulation or innervation of the striated muscles.

4. The general action of nitrite of amyl may be interpreted in the following manner:

Small doses act only on the nervous centres, causing diminution of the tonicity of the vagi, the excitation of the respiratory nerves, and of the nervous centres. Large doses go farther and produce a poisoning of the striated muscles.

THE TREPHINE IN CEREBRAL TRAUMATISMS.—The following condensed statement of the relations of the skull to the brain and their practical im-

portance is taken from the editorial columns of the *Progres Médical*, Oct. 14, 1876.

In 1851, M. Broca, in connection with his investigations as to the influence of lesions of the third frontal convolution on the faculty of speech, studied the relations of the frontal lobes with the skull by driving wooden pegs through the bony walls of the cranium. These researches have recently been taken up in England by Turner; in Germany by Huftler and Ecker; in Russia by Landzert; in France, by a pupil of M. Charcot, M. Féré, by de la Foulhouze, and lastly by M. Broca himself, a second time. M. Féré, in particular, has indicated in a very precise manner the procedures for finding in the living man through the integuments, the relations of the principal portions of the brain to the cranium. He first determines the position of the fissure of Rolando. When the head is perfectly horizontal, the lower end of this fissure of Rolando is on a line parallel to the horizon, drawn from the external part of the arch of the eyebrow to the point of junction of the auriculo-bregmatic plane, or the vertical plane passing through the external auditory meatus. The posterior and superior extremity of the fissure is, in the average of cases, about 45 millimetres behind the bregma, in the female, and in the male 47 millimetres, or more simply 4½ to 5 centimetres. But the bregma is situated at the point of junction of the vertical auriculo-bregmatic plane with the vertical median antero-posterior plane of the skull. With the aid of this elementary conception, it is easy to determine quite closely the sub-osseous arrangement of the principal lobes, and of some groups of convolutions.

Furthermore, it is sufficient to remember that it is in the neighborhood of the fissure of Rolando, we find the motor regions of the cerebral hemispheres. The usefulness of this experimental result in cases of injury of the skull is unquestionable. When, following a fall on the head, a patient presents persistent disorders in the upper or lower extremities or in a single one of either, or in the face, when he is affected with epileptic attacks always beginning in one or the other of these parts, in short when the symptoms are definitely localized, we may then suspect a lesion somewhere near the fissure of Rolando. Is it a simple contusion of the brain or a fracture with depression and compression of nervous substance by fragments of bone? It seems to us that, according to our actual knowledge of physiology, a simple contusion would be rather characterized by a local paralysis, at least before the period of inflammatory reaction.

The persistence of a primitively appearing localized contracture, and frequent epileptic attacks may justify the opinion that there is compression from a splinter of bone. We judge then that the exact point to apply the trephine is in the vicinity of the fissure of Rolando. When such a lesion occupies the frontal lobes, properly speaking, according to the doctrine of localizations, we ought not to meet with motor troubles unless the injury is very profound, reaching the central ganglia.

There are no more simple theoretical suppositions than the considerations we have developed. Among the facts most worthy of attention we may cite a successful case of trepanation by M. Lucas-Championniere in

the service of M. Panas. The patient presented successively transitory paralysis, contracture, and epileptiform attacks in the arm for many days; he was cured by the application of the trephine and the removal of an osseous scale which contused and compressed the brain in the vicinity of Rolando's fissure. M. Broca in his remarks before the Acad. de Médecine, said that, guided by these ideas as to the relations of the brain to the skull, he could empty at once an intra-cerebral abscess the location of which was then indicated.

Perhaps in the future we may be as fortunate elsewhere when observation shall have indicated a localization of a lesion in the recently discovered motor centres. Moreover, if we are to credit a long and conscientious memoir, that appeared recently in the *Archiv. f. klin. Chirurgie*, the time for the rehabilitation of the trephine is not far distant: under the influence of the searching criticisms of Malgaigne we have perhaps too quickly condemned this operation, which, though sometimes hazardous, should not have been completely abandoned.

It seems probable, therefore, that the diagnosis and treatment of cerebral traumatisms may find important indications in the symptoms furnished by localized lesions, when they become generally known, and when the importance they merit is accorded to them.

Butyl chloral.—Prof. Eulenberg at the session of the Med. Vereins at Greifswald, Aug. 5th, 1875 (reported in *Deutsche med. Wochenschr.* No. 43), gave the following as the results of a series of experiments on rabbits undertaken at his suggestion by Dr. Windelschmidt, to ascertain the physiological action of butyl-chloral (C_4 H_5 Cl_3 O). They confirmed in all essential points the results previously obtained by Liebreich. In small doses (0.28 to 0.49 injected hypodermically) it had a hypnotic action on rabbits. In larger doses (0.6 to 0.86) its effect was at first anæsthetic, beginning with the head and passing over the whole body, ending in complete narcosis. The respiration was quickened by the minimum dose, by small doses notably showed, and paralyzed by large ones. The pulse was unaffected by small doses and but slightly altered by larger ones, probably only as a secondary result of the decreased frequency of the respiration. The temperature was heightened at the beginning independently of the rise of the pulse, and later, was notably diminished.

Lactate of Soda as a Hypnotic.—Dr. Erler, assistant physician at Neustadt Eberwald Insane Asylum, publishes (*Centralblatt. f d. med. Wissensch.* No. 37, 1875) the results of clinical experiments on the hypnotic action of lactate of soda in the insane. He used it in the cases of seven female patients, partly recent attacks, partly chronic cases, but with positive results in only one. In another case it appeared to have an effect on one occasion, but as similar effects were observed at other times in the same patient without this medication, it is uncertain that we are to attribute to it the calmative influence.

In the other cases no effects whatever were observed to follow the use of the drug. Still no unfavorable action could be attributed to it. Dr. Erler thinks, therefore, that he cannot, with the evidence, class lactate of soda among our generally effective sleep producers.

THE POISONOUS ACTION OF THE PHOSPHATES AND OF VANADIUM AND CHROMIUM AND THEIR COMPOUNDS.—At the recent meeting of the British Association for the advancement of science, in its biological section (reported in *Nature*, Sept. 21), Prof. Gamgee, Mr. Leopold Larmuth and Dr. Priestly presented the results of a valuable series of researches on the action of certain special poisons. Vanadium and its compounds had been especially investigated, and found to be irritant poisons, rapidly causing death, often preceded by paralysis, convulsions, etc. When much diluted the solutions act injuriously on bacteria, germinating seeds, fungi, etc. The results are the same whether the solution is injected into the skin, the veins, or the alimentary canal of higher animals. Both before and after division of the respiratory nervous centre, vanadium causes in the first instance a stimulation, and in the next a depression of respiration. When the muscles and nerves of a frog poisoned with vanadium were tested by electricity after reflex irritability was entirely destroyed, the work done by the muscles showed no differences from that of non-poisoned muscles. The action of vanadium in the heart of frogs is curious; when vanadium is injected, the inhibitory centres acting on the auricles are not affected, but the vagus nerve loses its power of inhibiting the contraction of the ventricle. This result causes a dilemma which cannot yet be resolved, for it appears that vanadium is not a poison of the muscular fibres. Experiments have also been made on the relative poisonous activities of the ortho, meta, and pyro-phosphoric acids, and they have been found to vary considerably in their intensity. Further, a relationship in the various phenomena produced has been made out between the differate phosphates and vanadates. Investigations relating to chromium, in which rabbits, guinea pigs and frogs were employed, demonstrate considerable differences in its physiological action from that of vanadium. At first it induces irritation of the alimentary mucous membrane, and secondly it acts directly on the principal nervous centres, causing convulsions, paralysis, vomiting, a fall of blood pressure, and a sudden and temporary stoppage of the heart in dilitation. It is not specially a poison of muscle or of nerve trunks.

In the discussion which follows the reading of these papers, Prof. Kronecker, of Leipzig, expressed his opinion that the vanadates were really poisons of the muscular substance of the heart, and he accounted for the difference between the action of the auricle and ventricle by supposing a certain difference between the muscular substance of these two chambers. Dr. McKendrick who presided in this department, said that Prof. Gamgee's researches showed the advantage of the combination of the highest chemical with physiological knowledge, and they led to the hope that ultimately some definite laws would be discovered regulating the relations

between chemical constitution and physiological action. The field of inorganic chemistry was a very fertile one for this purpose, and much more likely to yield great results of this kind than the more complex considerations of organic chemistry. One important result was confirmed by Prof. Gamgee's investigations, that the larger the molecule of a substance the more powerful was its operation, but this was affected also by the stability of the molecule.

SANGUINARINA.—Dr. R. M. Smith, *Am. Jour. of Med. Sciences*, Oct. 1876, publishes the results of a series of experiments on frogs, dogs, cats, guinea pigs, rabbits, etc., to determine the physiological action of sanguinarina. The preparation used was prepared by Hance Bros. & White, of Philadelphia, which he thinks from comparison with other samples, those of Merck for example, was fully as pure and strong as any. The general results of his experiments (153 in all) are summed up as follows:

1. Sanguinarina destroys life through paralysis of the respiratory centres.
2. It causes clonic convulsions of spinal origin.
3. It has no effect on either the motor or sensory nerves.
4. It causes marked adynamia and prostration from its depressing action on the spinal ganglia and muscles.
5. It decreases reflex excitability through irritation of Setschenow's centre, and by ultimate paralysis of the spinal ganglia, from large doses.
6. It produces in cats, dogs, and rabbits, a fall of pulse and blood pressure, the fall of the latter being preceded by a temporary rise after the administration of proportionately small doses.
7. The fall of blood tension is caused by a paralysis of the vaso-motor centre, and by a paralysis of the heart itself, probably of its muscular structure.
8. The temporary rise in blood pressure is due to irritation of the vaso-motor centre, previous to its paralysis, by small doses.
9. The reduction in the pulse is due to direct action of the poison on the heart, through paralysis of its motor power.
10. Sanguinarina has no action on the liver.
11. It causes marked salivation.
12 It slows the respiratory movements by prolonging the pause after expiration.
13 The reduction is caused by loss of tonus of the respiratory centre.
14. Small doses cause an irritation of the respiratory centre, and consequently, an increase in the number of respiratory movements.
15. Applied locally, sanguinarina soon causes complete paralysis of striped muscular fibre.
16. It always causes dilatation of the pupil.
17. It is an emetic.
18. It always lowers the temperature.
19. When introduced into the circulation, it diminishes muscular contractility.

These experiments were performed at the Physiological Laboratory of the University of Pennsylvania, under the supervision of Dr. I. Ott, demonstrator of experimental Physiology.

The following have also recently been published on subjects relating to the Therapeutics of the nervous system and mind.

SCHWEIG, A clinical contribution to the effect of acute Bromization, *N. Y. Med. Record*, Dec. 30; LASEGUE and REGNAULT, Therapeutics as judged from Statistics, *Arch. Gen. de Med* Jan. 1877; HAMMOND, Notes relative to the Physiological Effects and Therapeutical value of Picrotoxine *St Louis Clin. Record*, Oct. 1876; RINGER and BURY, The effect of Pilocarpine (the alkaloid of Jaborandi) on two cases of Bi-lateral Sweating, *Practitioner*, Dec. 1875; SALTER, Case of Acute Traumatic Tetanus, Treated Successfully with Chloral Hypodermically injected, *Ibid.*; TAGUET, Note on the Influence of Colored Light in the Treatment of Insanity, *Ann. Med. Psych.*, Nov. 1876.